

E72-10021
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ERTS DATA USER TYPE I PROGRESS REPORT FOR JULY

Project Title/Objective: Relevance of ERTS to the State of Ohio

Proposal Number: MMC No. 87

Contract Number: NAS5-21782

BCL Subcontract Number: 72-17/G-1793

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I. DATA COLLECTION

During the first 30 days of operation simulated data were received from NASA in the form of two photographs and eight digital computer tapes.

Data collection by the State of Ohio/Battelle team during this period was concentrated in initial visitations to several Ohio-ERTS study sites. One trip was made to the Ottawa-Crane Creek Site and to the East Liberty Transportation Research Center Site. Two visits were made to the Zaleski State Forest Site. At each site team members met with State of Ohio personnel working in the area who were extremely helpful in our initial familiarization and ground-truth gathering efforts. These initial visitations concentrated primarily on obtaining ground-level photographic coverage of the area and identifying on-going efforts and available data (including maps and aerial photographic data) potentially important to the planned ERTS ground-truth efforts.

Problems in data collection have been lack of information as to when the spacecraft will pass over Ohio (for use in planning aircraft overflights), and the possibility that many of the crops grown at the Ohio Agricultural Research and Development Center in Wooster are in experimental test plots too small to be discerned in the satellite photography. However, the Wooster Center has several branches around the state which grow different crops in large fields and which may be used to provide the ground-truth needed for this phase of the program.

In the next two months data collection plans are to conduct an aircraft underflight of each study site timed to coincide as closely as possible to ERTS 1 overpasses, to complete initial ground reconnaissance of the Wooster and Cleveland study sites, and to map selected features at all five study sites.

II. DATA ANALYSIS

July efforts in this category involved preparing for a state of readiness to analyze ERTS 1 data. This included equipment purchases and laboratory construction by Battelle. As originally proposed, Battelle ordered a 32-color Spatial Data Systems Color Viewer (Model 703-32) and a Spectral Data Corporation Multispectral Additive Color Viewer System (Model 25) for ERTS 1 data analyses. The additive color viewer has been delivered and installed; the multispectral viewer has not as yet been delivered. During August it is planned to complete the construction of the data analysis laboratory including the installation of other specialized and previously available photogrammetric equipment, and to commence initial analysis of ERTS 1 photographs as they become available.

III. DCS/DCP EFFORT

During July the water quality monitoring installation, comprised basically of a Schneider Instrument Model RM25 Robot Monitor, and located at the Battelle West Jefferson site, was inspected and determined to be essentially in readiness for its planned use with the ERTS 1 DCP.

No significant action can be taken toward establishing the overall Ohio-ERTS DCP installation until the DCP is received. However, early in August minor calibrating adjustments will be made to the Schneider equipment. During the month final determination will be made as to what additional sensors (air-quality and agriculture-related) will be utilized with the DCP. The Battelle-funded effort to design the interfacing equipment will be initiated if this proves to be feasible prior to receipt of the DCP.

IV. DATA UTILITY ASSESSMENT

Effort in the data user utility assessment category has been nominal thus far since ERTS photography is not yet available. However, some positive accomplishments have resulted mainly in terms of adding key state personnel to

the evaluation team during the course of initial visitations to the study sites and to state agency offices participating in the Ohio-ERTS program. These are primarily personnel who are responsible for and/or involved in work at the study sites, or state environmental and natural resources personnel whose knowledge and experience will be valuable in the evaluation of the results of ERTS photography analysis.

V. SIGNIFICANT RESULTS

None.

VI. MISCELLANEOUS

Negotiations between Ohio's Development Department and Battelle-Columbus have been completed and a subcontract has been signed by both parties. The contract is currently in the Ohio Attorney General's Office for routine legal approval.

A general press release describing the Ohio-ERTS program was prepared and distributed. A copy of this release is attached. In addition, the Development Director, Dr. David Sweet, held several press conferences following the successful ERTS 1 launching that resulted in local newspaper and television coverage of the Ohio-ERTS program.